Exploitation Report:

Future Continuos for Museum Incubator and Beyond







1.1. Building networks	8
1.2. Digital Space of the Network	
2. Developing Open Strategies: Sharing New Knowledge	
2.1. Needs Assessment and Diagnostics	
Desk Research	
Diagnostics Survey	10
Needs Assessment Report	11
Analysis and Conclusions of the Survey for creating insights for the sector	11
2.2. Sparkle Reports	13
2.3 DOORS e-publication	14
3. Building a pilot application and incubation framework	16
3.1. Application framework	16
3.2 Incubation framework	17
4. Incubating & Piloting	19
4.1 Contributions to digital maturity	19
4.1.1 DOORS Community Values	19
4.1.2 Collaboration over Competition	19
4.1.3 The Learning Experience: Incubation Stage I	20
4.2 Contributions to the museum of the future	20
5. Self Reflection Tool	22
5.1. First Iteration of the Self-Reflection Tool	22
5.2. Finalised Self-Reflection Tool	22
6. Communication & Dissemination	24
6.1. Internal Communication	24
6.2. DOORS Communication & Dissemination	24
7. Summary	26
Annex 1:	28
Annex 2:	30
Annex 3:	33
Annex 4:	
This project has received funding from the European Union's Horizon 2020 research and innovation prog	ramme

ARS ELECTRONICA







under grant agreement No 101036071.

















Abstract

This report details the outcomes of the 24 months of DOORS – Digital Incubator for Museums and reflects on their present and future exploitability and impact on the cultural heritage sector.

The exploitation strategy defines the exploitable outcomes and outputs of DOORS – Digital Incubator for Museums - the concrete results that have been used and have the potential to be used and applied by multiple stakeholders or alliances as a source of new or improved **knowledge**, as a tool or an approach.

The scope of this document is to offer a glimpse into and summarise the progress of all work packages, organized into three principal sections: open strategies for sharing research outputs to contribute to the collective **knowledge** of the sector, the design and implementation of DOORS incubation as an **approach** example, and the **tools** we designed and made available for the sector. It provides an overview and description of the activities (desk research, surveys and the development of a self-reflection tool) undertaken to assess the landscape in which the project operated and the results of this assessment, the relevant stakeholder outreach and involvement, development of a diagnostics framework and an outlook onto the fully online incubation programme as a format for the sector. It also offers a closer look at the approach to community of practice building (including the pilot selection and management, and the setup of the ORBIT) as an example of collaboration and knowledge exchange that could be further used by the sector.

This overview and the analysis of individual outputs does not only show the achievement of specific objectives but also distils practical insights that may be adopted as the basis for future research-based innovation and capability enhancing practices, funding and policymaking.

Although initially targeted at small- and medium-scale museums in EU and focusing on the matters of digital transformation, the developed support scaffolding of a digital incubator can be appropriated and re-purposed beyond the defined target audience and focus area, especially to promote creation of the shared learning spaces and stakeholder engagement in research and innovation practice and policymaking.













Opening the DOORS:

Building an Online Incubator on Digital Transformation

<u>DOORS – Digital Incubator for Museums</u> is a project initiated by three partner organisations: <u>Ars Electronica, MUSEUM BOOSTER</u> and <u>ECSITE</u>.

As the incubator dedicated to digitalisation in small and medium-sized museums, it focused as much on the projects as on the practitioners behind them. Our overarching mission was to spark lasting changes in small and medium-sized museums, support and boost sustainable digital transformation.

While digitalisation has indeed a lot to offer, in the cultural heritage sector it is still perceived with controversy, as online cannibalising the onsite, thus remaining underprioritized, if not undiscovered or unaffordable for many institutions. As a project centered around an incubator for small- and medium-sized museums, DOORS was an acknowledgment of the urgency and scope of the challenges the sector and its segment face.

Setting out on this journey, we asked ourselves, how can we support museums in creating transformative processes by equipping people with digital skills and the institutions with context-appropriate technologies? We believe in people-centred museology and that communities and individuals critically shape how we create, collect, conserve and share cultural heritage. The ambition and challenge of the incubator has been to develop and implement a support structure that would condition and care for the community of practice, offering funding and a shared learning interface, delivering along this journey resources, skills, tools and models with a broader exploitability.

For starters, the teams behind the projects incubated, perhaps even more so than the projects themselves were nurtured as ambassadors of change in their institutions.

We took an agile approach to the development of the DOORS Incubation Programme, iterating and adapting as we were delivering it. Incubation is a shared risk-taking endeavour and we learnt with and from museums. Addressing challenges with peers allowed us to better identify where the most pressing needs are, to develop more and better opportunities to learn from each other, to adopt shared standards and approach resources and infrastructure in a more transparent, open and mindful way. This approach proved to be appropriate for our core aim to produce a more enduring impact of DOORS as an incubator.

It's easy to forget that innovation, transformation and change can feel uncomfortable for a lot of people. When you're navigating uncharted waters, and there's no map to follow, no received wisdom, the ability to recover from mistakes and resilience are crucial to building a viable project. To experiment one needs courage. The broad spectrum of learnings from the DOORS - the good, the bad and the ugly from collective practice and individual journeys reminds us that everything's impossible until somebody does it. Thus, we defined success loosely, insisting that success was to be measured in time against the success of the team's journey toward a digital transformation which can come in the form of openness to













collaborations, courage and curiosity, preparedness to embrace change and adaptability.

This publication is a roadmap of the deliverables of the project, the thinking behind them as intended to be useful and usable and a translation of the learnings from our groundwork into possible frameworks for the future. They are now a part of the collective knowledge of the sector and can be used by practitioners or project facilitators within but also beyond it in their planning of future programmes and funding schemes. This document is intended for our peers who consider working on similar enabling and learning programmes, or designing fieldwork specific and practice-based support structures, or those developing funding and support formats and models for the sector.

As we look back on our journey, we reflect upon exploitability, remaining sensible and sensitive to the specific context in which the project was operating. We remind ourselves and humbly to others, when trying something out, it is also OK to make mistakes and we can and need to learn from them. The importance of having a growth mindset versus a fixed one cannot be overestimated.













1. Developing networks and open strategies

1.1. Building networks

USERS: Participating Museums, Sector Experts (the network members)

EXPECTED IMPACT: We expect the network we developed to continue to exchange information, experiences and learnings and thrive in the shared-learning environment it has engendered.

USERS: The Museum Sector

EXPECTED IMPACT: We expect our model of network development to serve the sector at large in any further attempts to establish more long-lasting networks.

DOORs' consortium has been structured around the expertise of the member-partners, according to agility and collective intelligence principles, rather than a proprietary logic. Foundational to the success of DOORS has been the complementary nature of the consortium and its flexibility due to the moderate size and efficient decision-making and adaptability.

DOORS was steered by the consortium board and the expertise expanded and enhanced via a curated pool of external contributors - the Orbit.

The <u>project ORBIT</u> consisted of cultural and museum professionals, creative technologists and policymakers with a wealth of experience in the focus area of the project and whose involvement implied advising, mentoring, and steering the DOORS team. Due to the imperative need for diverse external expertise across domains of field practise, the project's ORBIT has been a significant pledge in the project's quality. In practical terms it has foreseen substantial investment in terms of time, i.e. selection, recruiting, mediating, and budget, i.e. expert fees.

The participating museums were also integrated into this network, not as mere listeners but as active contributors to the knowledge being exchanged within it.

1.2. Digital Space of the Network

DOORS committed to creating a space of shared inquiry and risk-taking, where emergent context-sensitive ideas can be nurtured, tested and established through iteration. Therefore, DOORS created a framework and shared context where the cohort and their pilots could take time to gradually grow.

In practical terms, communities of practice are dependent on the upkeep of communication channels, whether they are online or offline. As a fully digital incubation programme, we had to create an online space to enable a gradually developing but ongoing flow of conversation.













With multiple parameters factored in, a Microsoft Teams group was established for communication, both within the cohort and with the DOORS team, to access and share files and resources, share opportunities, remind of deadlines, ask and offer help, and other forms of both formal and informal communication.

Though our online channels have been active throughout the incubation period, it is hard to imagine their continuation in the future, without the moderation and troubleshooting provided by the DOORS team. Still, by design and intention, the group will remain open for two years after the end of DOORS, to give the time to organise other meet-up spaces.

2. Developing Open Strategies for Sharing New Knowledge

USERS: The Museum Sector Practitioners

EXPECTED IMPACT: The open strategies we established throughout the project resulted in a series of public reports and resources. Beyond the actual resources, the sector can benefit from having this blueprint for open strategies as a starting point for instilling a collaborative mindset.

USERS: Research & Funding Bodies

EXPECTED IMPACT: These open strategies can also give funding bodies a model with which to work and which they can integrate in further calls. We believe it's an example (one of the many possible), that can be a starting point for formulating calls and funding schemes with networking in mind.

2.1. Needs Assessment and Diagnostics

As a pre-requisite for developing the Incubation Programme that responded to the real-life needs of a particular target group - small and medium-sized museums - we looked into the status-quo of the sector in the EU for an assessment of our beneficiaries. The needs analysis phase contributed significantly to refining the innovation areas & pilot frameworks, served as a research basis for the pilots and was further used for extracting lessons-learned & recommendations in the incubation strategy and e-publication. The needs assessment also laid the foundation for the self-reflection tool.

To ensure that DOORS is relevant to the needs of the community it is serving, we have undertaken a sector-wide study of the status quo, particularly enablers and blockers for the strategic advancement of the sector and packed it in exploitable deliverables.

The DOORS consortium based its needs assessment on three pillars.

Desk Research

USERS: The Museum Sector













EXPECTED IMPACT: The deck research specifically, resulted in numerous resources and tools that museum practitioners can use in the implementation of future digital pilots (e.g. the Sparkle Report, the Self Reflection Tool, the digital solutions providers list).

The first pillar and initial step was conducting the multi-layered **desk research** to

- identify **experts** in the sector to be involved in the DOORS incubation programme
- identify examples of other digital pilots collected as **inspiration** or, as we called them **"sparkles"**
- study the already available self-reflection / self-assessment tools or diagnostics tools and identify the gaps, particularly in terms of addressing small and mediumsized museums and
- collect relevant **digital solutions providers**, to give a sense of the broad range of expertise and possible collaborators in the creative and tech sector.

ANNEX: The Case Cards template

ANNEX: The full list of interviewee list included in the first edition of the Sparkle Report

Diagnostics Survey

USERS: Research Bodies

EXPECTED IMPACT: The outline of the survey can be used as a starting point in conducting further research into the needs of (small and medium-sized museums).

There are two principal outputs of this undertaking that offer learning beyond the scope of DOORS: the developed outline of the survey and the analysis of its findings.

A diagnostics survey was launched in January 2022 to gain an overview of the current digital maturity levels and specific needs of the sector's small- and medium-scale segment, building and fact-checking the knowledge base for the programme.

The survey was divided into **11 sections (mapping parameters)** including general information about the institutions, and thematic sections focusing on the role of digital, people / staff, specific tools, UX (User Experience Design), data and audience research, the impact of digital, the effects of COVID, strategic planning (planned implementation & KPIs), enablers & barriers, and network & support. It was targeted specifically at small and medium-sized museums and allowed to collect and draw conclusions from the input of institutions. Importantly, the findings were further used to design and finetune the incubation programme, both Stage I and II and informed public presentations that DOORS gave in 2022 at the conferences of major professional networks, such as NEMO, ICOM and Europeana.

The downside and major limitation of this survey has been its scope. It was very demanding, time- and effort consuming for the respondents. Because DOORS had its own time limitations and a primary focus on incubation, we only had one opportunity to conduct such an













undertaking, that included building and programming the survey, arranging and holding the reach-out campaign and ensuring timely analysis of the outcomes, as well as feeding this analysis into the development of the project.

Subsections of the survey can be used or adapted to more specific further inquiries and can be regrouped depending on the needs and target audiences.

ANNEX: full outline of the survey

ANNEX: the full list of organisations we reached out to in order to promote the survey

Needs Assessment Report

USERS: Funding & Research Bodies

EXPECTED IMPACT: Our survey focused on small and medium-sized museums – a category whose specific needs have been somewhat neglected. The learnings captured in the Needs Assessment Report can be used by research and funding bodies to design calls and opportunities that address these specific needs.

The analysis of the survey's findings were captured in the <u>Needs Assessment Report</u> (July 2022). The report outlined the prerequisites of and factors for undertaking and/or developing a digital journey, concluding that changes are needed both at the organisational and sector-level, that these changes must be long-term commitments rather than one-off efforts and that they must consider the sustainability of the digital transformation from the beginning.

Conclusions of the Survey - Insights for the Sector

For the better understanding of the relevance and further usability of the DOORS outputs, a recap of some principal findings of this strand of research is necessary.

The survey revealed an increased appetite for digital in the museum sector, hampered by the lack of resources, especially in small and medium-sized museums. 80% of survey respondents said that their digital budget is not big enough to match their ambition. But at the same time under-prioritisation of digital has surfaced as a massive issue.

The shallow resource pool in small and medium-sized museums results in them rarely having a dedicated team for digital or roles dedicated to digital activities. A deficit, if not absence, of specifically skilled workforce is more common in small organisations compared to larger ones (and oftentimes those placed in metropolitan areas). 41,7% of respondents to the survey claimed that there is no specific department or person coordinating digital activities within their organisation. The reality in small museums is that digital tasks that would ideally need to be distributed across several digital roles, are undertaken as appendixes to non-digital tasks. Thus, a lack of specific skills within teams leads to the lack of confidence to undertake and deploy digital endeavours. Time pressure and lack of guidance can often make those tasked with the digital transformation feel insecure about its implementation. Programmes













like DOORS significantly increase the sense of self-reliance of museum staff through access to knowledge, expertise and opportunities to enhance one's skill set. Museum practitioners reported relying on the use of open-source learning resources and expressed a desire for collaborations across institutions. An issue that inevitably arises is the museums significant challenges, if not to say inability to attract skilled staff. For these capabilities to be improved, the sector needs to address remuneration (salaries commensurate with other sectors), but also available career pathways, further upskilling opportunities, and staff retention strategies.

The study has shown that tracking and measuring of digital activities is still very much underdeveloped and not considered in the decision-making processes of museums. 28% of responders stated not having defined goals or KPIs. 21,5% have some defined goals, but no KPIs and do not regularly measure comprehensive outcomes, whereas 11,3% regularly measure only specific outcomes, but have no defined goals. Quite revealing was also that 18,3% answered "I am not sure/ I do not know". But even among those who define goals and KPIs, a significant part (26,5%) take little to no action if digital KPIs are not met.

It became apparent that museum practitioners in theory acknowledge the importance of measuring impact for the improvement of their services and, particularly, for understanding their impact on audiences. Yet most continue to be laggard in defining goals and tracking their progress. Therefore, capacity building and training programmes that prepare sectoral workforce to critically reflect on KPIs and to take relevant and timely actions are needed. Particularly, professionalisation programs for small and medium sized museums on impact measurement, forecasting, benchmarking and assessment are necessary to empower and ensure sustainability of any progress with digital endeavours and evolution.

Programmes geared toward individual digital projects are primary resources for small and medium size museums to fund their digital endeavours. But for digital transformation funding schemes to be more effective and engender systemic change in the sector, they need to define ambitions beyond project-based agendas. To overcome the existing digital gap and to boost digital confidence, partnerships and collaborations must be fostered, and a culture of collaboration that enables knowledge exchange and peer-to-peer learning must be embedded in the sector at large. Being part of a network, or better community of practice, can help practitioners keep up to date on trends and developments in the field, and not feel isolated in their digital journeys. The importance of such networks for museum practitioners is also acknowledged as 58% of museums regard partnerships with other organisations who share their knowledge as the most beneficial in terms of developing digital skills. 49% of museums also stated that training sessions delivered by external training suppliers would be highly beneficial to advance this domain. Yet paradoxically, also nearly half of the survey responders (48,6%) stated that they do not participate in or contribute to networks and/or associations in matters of digital transformation and institutional innovation (e.g. awareness of trends, better anticipation of challenges and/ or updates on new tools and technological developments).













Ultimately, a substantial discrepancy between what in theory is regarded as important and what is prioritised in practice could be seen in numbers and across sub-domains of inquiry. Further qualitative study of the factors behind such grim statistics would help individual institutions, sector-support organisations, funders across scales and focus areas and, indeed, policymakers formulate strategies of workforce enhancement and talent management.

While the findings have been substantial, the DOORS team acknowledges and has been articulating the need for follow-up research to expand our collective understanding and build schemes that support small and medium sized museums in their digital transformation endeavours and to finetune our comprehension of the broader needs of the cultural heritage sector.

The survey and its analysis can benefit the sector at length if they are conducted longitudinally, followed up by qualitative and representative interviews that allow insights into contextual details; if relationships with the respondents could be sustained and developed over time it could inform the evolution of support structures tailored to the identified needs and the dynamics of their development(s). Such studies undertaken across institutions and/or on a sectoral level would strategically empower museums and enhance collaborative R&D strategies.

2.2. Sparkle Reports

USERS: The Museum Sector Practitioners

EXPECTED IMPACT: The Sparkle Report offers museum practitioners examples of other digital pilot projects by diving into the challenges each of them has faced and the different approaches to overcoming them. They can be used as a source of inspiration before the kick-off of a digital pilot to set expectations and prepare teams and institutions to cope with the unexpected.

DOORS abolished the wording "best practice" and introduced a more metaphorical approach. We were looking for cases and practitioners that offer "sparkles" of ambition, inspiration and learning, derived both from what may be deemed as success-stories and the "wrong-turns" taken, looking into the up and running as well as experimental projects still in-the making.

Sparkle case-studies offer ingredients for successful partnerships, collaborative processes, business and revenue models and inspiring stories. Aligning with the general process-driven approach of the Incubation programme, the report has been conceptualised accordingly. The first edition of the Sparkle report was published as an overview and invitation to start the conversation. But as the Incubation programme was designed to be inhabited by the cohort pilots in the making so is the second edition of the report. Therefore the 20 pilots selected and finalised during the Incubation Stage II will become the second constellation of the sparkle cases from across the EU. The report will follow the structure of the four innovation areas as did the pilots.













Why yet another report? It documents DOORS research in a format that is familiar to both museum practitioners and stakeholders in the sector. Though working in a field where no two institutions are alike, these cases offer real-life stories and insights into healthier partnerships, the possibilities and challenges of collaborative processes, the prerequisites for the (re)development of business and revenue models through stories of institutional creativity, courage and vulnerability. Learnings are derived both from what may be deemed as success stories and "wrong-turns" taken, as well as experimental and iterative projects yet in-the-making.

2.3 DOORS e-publication

USERS: Facilitators

EXPECTED IMPACT: Breaking the Digital Ceiling, Key Insights from DOORS – Digital Incubator for Museums, is a translation of the learnings from our groundwork into possible frameworks for the future that be used by facilitators to design programmes more attuned to the realities of the museum sector or at least come up with ways to uncover its needs.

USERS: Funding Bodies

EXPECTED IMPACT: The publication also looks at what types of funding-schemes might help future-proof museums, thus becoming a valuable resource for funding bodies in designing more attuned funding schemes.

USERS: Museum Practitioners

EXPECTED IMPACT: Finally, by bringing in the voices of the participants in our incubation programme, the publication becomes a resource for all those museum practitioners that are preparing to onboard an incubation programme, or develop digital pilots by themselves.

After finalizing and bringing together all the strivings, aspirations, challenges, anxieties, insights and learning from the DOORS incubator for small- and medium-scale museums, the final e-publication came into being.

This publication is a roadmap that marks the steps of our *interpretation of an incubation programme*. It is not a report, it rather brings together multiple voices from behind the scene, within the cohort and beyond it, voices of those who inspired, challenged and cared for and with the DOORS team and cohort. The voices of the project team, the experts and the participating museums come together to share, comment on and contest our methodologies and practices.

It is structured in five sections. *Our Legacy* summarises the knowledge-sharing practices and the design of the incubation programme so as to create long-term impact, hopefully inspiring granular changes at a museum level, and more attuned funding schemes. *How to Share Knowledge* unpacks the architecture proposed by DOORS to ease the knowledge-sharing within and beyond the project. *How to Incubate* delves











into reasoning and design of DOORS incubation programme and its contributions to inspire future programmes. *How to Make the Most of It* invites the museum practitioners that participated in our programme to talk about their experience and what they wish they'd known in the beginning, to inspire future participants in similar programmes. *Future-Proofing Museums* invites practitioners to speculate on future incubation and funding schemes that recognise digital transformation as a necessarily ongoing process of evolution.













3. Building a pilot application and incubation framework

USERS: Programme Facilitators & Funding Bodies

EXPECTED IMPACT: The structure that DOORS has developed for its purposes including the framework of the open call, and the framework for a two-stage incubation programme can be used as a resource for other practitioners in the field.

3.1. Application framework

USERS: Programme Facilitators & Funding Bodies

EXPECTED IMPACT: Our approach to the application process was part of a public report and thus can be used as a model for future calls to ensure a smooth and transparent evaluation process and an even coverage of innovation areas, institutions sizes and geographical areas.

The Consortium refined and defined both the condition of participation (eligibility criteria and eligible activities) and evaluation criteria that shaped the open call for the first incubation stage. As targeted at small-and medium-scale museums, eligibility criteria defined and outlined the types of organisations and the size of the organisation that were eligible to participate in the call. Three reference documents were published to inform and support applicants when preparing and submitting their pilot proposal:

- The <u>Guide for Applicants</u>, gathering all the essential information regarding the pilot framework, eligibility requirements, application and evaluation processes, and deadlines.
- The <u>proposal template</u>, detailing all the required information and specifying the
 proposal questions in order to ensure that all the important aspects of the pilot
 proposal are presented in the application.
- A<u>standard evaluation form</u> to help applicants identify ways to improve their proposals and provide an overview of the standard evaluation questions.

These remain on the website as a resource for future calls.

Consequently, a structure was developed for the <u>Stage II open call</u>. Only the 40 institutions participating in the first stage of the incubation programme were eligible to apply with 20 pilots to be selected to 0 go through the 9 month incubation programme. The maximum budget of 27.000€ was foreseen as the support of a single pilot implementation within DOORS.

A new proposal template was designed in which applicants had to highlight notable changes and improvements to the initial pilot proposal based on the learnings from the first incubation stage.













3.2 Incubation framework

USERS: Programme Facilitators & Funding Bodies

EXPECTED IMPACT: Our model of incubation was innovative in that it was structured in two stages, and combined capacity & confidence building with implementation. The publications that document the incubation process and the pilots developed within it are a useful resource for the sector at large.

The Incubation Programme of DOORS by design and intention was twofold: support structure for pilot implementation by individual institutions and a shared learning programme and process. This implied leaning on the findings of the research and complementing it with close observation of the participating museums, both as a cohort and as individual institutions. The first stage was designed to establish a common language and common ground of understanding the diverse potential and applicability of digital. We onboarded deliberately more projects than we could further financially provide implementation budget to. Giving more institutional teams a chance to participate in a capacity-building programme has served several purposes: 1) it has saturated the DOORS internal community with diversity in terms of expertise, 2) helped to develop a polyphonic discussion across areas of expertise, organisational realities and regional specificities and 3) beyond the direct agenda of DOORS, enabled the leap of 40 project proposals (and more informed and boosted institutional teams) that could be used for funding bidding beyond DOORS, eg. national funding or sponsorships.

The second stage was a hands-on development of a minimum viable product in the environment of the incubator with a final cohort of the 20 pilots, that included an added dimension of individual mentorship.

The DOORS recipe for incubation which can inspire others can be summed up in a few points:

- pairing incubation with capacity & confidence building, beyond incubation focused on implementation.
- mapping more clearly the specific needs of our beneficiaries and leaving behind assumptions in favour of uncovering less visible hurdles.
- setting-up an ambition and appetite for a network and community of practice that is a blueprint that future programmes could use or build upon.
- spark lasting change by maximising knowledge-sharing within and across the cohort of pilots, by including in our own interpretation of the call different knowledge-sharing models, practices, or infrastructures.
- considering de-growth model where reasonable, doing less with more consciousness and awareness as well as consistency and sensitivity towards the













resources available, i.e. not only for the launch but significantly for the maintenance and further development and iterating.

- · investing in diversified network and the varied ways in which it can come together, creating a safe environment where participants feel comfortable to ask questions and see others and eventually themselves as a source of knowledge.
- · instilling collaborative mindset that sustains networks: regardless of how timeand resource-intensive building a network might be, one can hardly overestimated its importance for knowledge-sharing.
- preparing practitioners to articulate and communicate the knowledge gained within the shared learning environment of an incubation programme to the rest of their team; gradually developing and cultivating the confidence to openly share, contribute to and benefit from learning together; carefully and thoroughly reflect on processes and can help the teams grow within project work and beyond it.
- · cultivating collaboration as fertile ground for growth.

Our model was detailed in the public Incubation Methodology Report that can serve as reference or a starting point for facilitators of similar programmes or funding bodies that would like to extract from our learnings ideas for designing future opportunities.

The formats and content of the incubation programme, as well as the reasoning behind the decisions around its design were detailed in the final e-publication: Breaking the Digital Ceiling, Insights from DOORS-Digital Incubator for Museums. The publication can be found in our resource library.













4. Incubating & Piloting

4.1 Contributions to digital maturity

USERS: Museums

EXPECTED IMPACT: The incubation and piloting benefited the museums in the programme, but we believe the existence of the pilots is not simply a one-off experience but rather one that will inspire lasting change in practices in museums. Beyond the actual pilots, the knowledge gathered, the changed mindsets and the values shared will leave a mark on the institutions that participated.

4.1.1 DOORS Community Values

For DOORS, co-creating community values has been the backbone of the shared learning endeavour in both stages of the incubation programme. Through discussions, workshop activities and collaborative sessions, the DOORS cohort identified during the kick-off and onboarding, and then reiterated through the duration of the programme and committed to shared community values for the incubation. DOORS gradually developed a community of sharing and mutual responsibility, acknowledging the necessity of trust, fueled by open communication, transparency about needs, resources, boundaries, and feelings. The DOORS team was committed to diversity and fostering well-considered and respectful critical engagement and feedback, embracing vulnerability, and abolishing proprietary logics.

4.1.2 Collaboration over Competition

DOORS prioritised collaboration over competition. The programme encouraged museum professionals to seek out their peers for advice, camaraderie, and collaboration and we deliberately introduced formats that fostered those values. The consortium's ambition has been to challenge the status quo and inspire museums to move forward as effective collaborators.

Yet, during the incubation programme, we also became aware that while highly appreciated, attempts to connect institutions in a network or a community, at the same time as offering external training session to bring practitioners up to speed with the digitalisation efforts of the sector in a short span of time often results in programmes like DOORS becoming overwhelming, i.e. too time-consuming and hard to manage for participants alongside the regular workload. This was the case for our target group, small and medium-sized museums.

This learning has informed and shaped the design of the incubation programme stage II. We focused on one-to-one mentoring for a more efficient use of the incubation period and intertwined those with innovation area workshops, proportionally disseminated along the incubation period progress-sharing sessions and peer-to-peer reviews.













4.1.3 The Learning Experience: Incubation Stage I

The 3-month first stage had a strong educational component to equip museum staff with a **common understanding of digital**, develop **situated knowledge** base for a specific cohort and **the essential critical skills to navigate this space.**

As an investment in building up more digital confidence, setting up digital mindsets of the museum staff and building a network of peers within the cultural sector, across geographies and practices has hopefully helped evolve institutional strategies, critical literacy towards technological tools and their implications, digital courage, alongside developing a sense of belonging to a community of practice.

It has been expected and implied by the learning curve and programme design that the original pilot ideas will change under the influence of tailored workshops, inspiration sessions and feedback from peers. We believe even those that have not made it to stage I have gained from this experience and can reuse the feedback and learnings in future applications.

4.2 Contributions to the museum of the future

USERS: Other Museums

EXPECTED IMPACT: Piloting not only brought valuable learnings and experience upon which other museums can build, but it also made possible that actual new products, services and offers be launched in museums across Europe, some of which can be easily adapted or translated to different contexts.

USERS: The Museum Sector

EXPECTED IMPACT: The innovative products, services and offers launched will contribute to a shift in how the museum sector is perceived by audiences. Once exciting experiences and offers reach audiences, they are bound to create the impression that the sector is in step with their demands.

USERS: Museum Audiences

EXPECTED IMPACT: Beyond polishing the image of the sector, these pilot projects will have a direct impact on audiences. They either make museums more inclusive, improve communication with audiences, create more meaningful experiences, or fill a gap in the market.

Stage II helped museum teams validate their proposed pilots, consider further sectoral and market opportunities, build viable product versions (either stand-alone or as phases in longer-term endeavours), prepare for targeting the right (internal and external) audiences and even secure further funding.

At the end of the project, DOORS –Digital Incubator for Museums will have seen through the launch of 20 pilots in 20 different museums across Europe. The











diversity of these pilots **exposes the endless possibilities** for museums to innovate and set wonderful examples for others to be inspired by. They are the Sparkle Cases that make up the second part of our collection, and a true testimony to the creativity, adaptability and capability of museum practitioners.

Some of these digital pilots are designed with **a wider network** in mind, and address other museums as their target audience. *DigiSmALL: Digital Curator for Small Museum, READ - Responsive E-Ink Adaptive Displays, Digital Warmth with tiled stoves* are a few examples of pilots that could be used on a local, national, or even international level, if not in their current form, then at least as blueprints that can be adapted in other institutional contexts.

Others have come up with ways to digitise their collections, for example 3D Scanning Infrastructure for Nature Education and Remote Research by the University Tartu or AR Quest: Urajärvi Mansion by The Association of Uräjärvi Mansion's Friends (FI), or have come up with content production approaches that have inclusivity at their core like The only way to learn is through encounter! by the Istanbul Dialogue Museum.

Some unveil **the sector's ability to reinvent itself** through new revenue streams. *Interactive Hub for Wooden Architecture* by The Urban Wooden Architecture, *An inclusive digital transformation of the museum experience* by Muzeon and *RadioMoLI: Archive of Tomorrow* by MoLI all show the creative, unexploited possibilities to generate revenue in the museum sector. While not a goal in itself, the ability to generate revenue remains a condition for the survival of a lot of small and medium-sized museums. These projects manage to show how resourceful and resilient museums can be.

Other pilots **reach audiences** with fun, interactive, educational experiences, exposing them to new modes of knowledge acquisition that were perhaps not thought possible in museums. They are sometimes a chance for **communities** to come together as is the case of *Awakening Memories | Leaving Traces* by The Regional Museum Goriški Muzej (SI), or for **youngsters** to explore new ways of learning, as shown by *Hands on the Map!* By the Maps Museum from The National Museum of Maps and Old Books (RO) or *Be A Part – encourage engagement in digital education* by The Museum of the Working World (AT). Othertimes, they use gaming to engage audiences like *Digital Storytelling and Gaming App: THE TSM QUEST! Terra Sancta* by Terra Sancta in Jerusalem, or *Ctrl+Shift+Esc | Digital Museum Escape Game* by The Computer Museum (SI).

Some have found ways to **connect the museum with its natural surroundings**, like the case of *Creating an E-park Guide with Gamification Elements to Boost Visitor Participation*. by Arboretum Volcji (SI) and *The Open Air Museum* by Museo Civico Vignola (IT).

Others have taken this opportunity to **analyse and understand their audiences**, as is the case with *Mariemont 3D:* a new user approach and visitor experience by The Royal Museum of Mariemont (BE), *Innovating Audience Engagement for Hybrid Events* by IMPAKT [Centre for Media Culture] (NL) or *Digital Audience Analysis - Audience segmentation based on user motivation* by The Neanderthal Museum (DE).













5. Self Reflection Tool

USERS: Facilitators & Museum Practitioners

EXPECTED IMPACT: Our Self-Reflection Tool (SRT) is a great team exercise that will prompt museum staff to look critically at their practices, processes and mindsets, identify where work needs to be done and mark the steps forwards.

5.1. First Iteration of the Self-Reflection Tool

Self-reflection tools (SRTs) are essential devices that support organisations in facilitating plans of action, based on a realistic overview of an organisation backed by meaningful data, and tuned to change. The experience of developing and running DOORS has proved that opening the process and relying on collective intelligence helps to build more organic and porous structures of knowledge production and ensure their adaptability to ongoing change and receptivity to diverse expertise. This is why the first iteration of the DOORS Self-Reflection Tool was tested with the cohort of the Incubation Programme Stage I. The participants assessed their own situation (5-10 page report assessing their status quo and needs) and provided feedback on the usability of the tool.

5.2. Finalised Self-Reflection Tool

After a sequence of individual and group feedback loops conducted with each of the museums taking part in the first stage pilot as well as service design elements and the practical dimensions of the project canvas (workshops, peer-to-peer sessions, expert and stakeholder involvement), we launched the final version of the DOORS SRT - a more interactive and purposefully collaborative, i.e. team-oriented, exercise that can also be done individually. The tool encourages participants to be as detailed and as brave as possible in their reflection. Each question is an opportunity for participants to bring examples, personal experiences, and views to form and inform a bigger picture.

The tool was issued in <u>digital format</u> and as a printed card deck. It can be used

- 1. to map out the steps of the digital transformation of institutions and processes,
- 2. to help museums analyse their organisation more accurately and identify their strengths and weaknesses before setting out to implementation,
- to identify the organisational conditions needed for a successful development and deployment of digital skills and literacy in museum teams, and to explore the changes needed at an organisational level to facilitate capacity building frameworks,
- 4. to formulate long-term strategies informed by current needs and foreseen future needs,













- 5. and to draft plans of action to implement these strategies
- 6. as the foundation for a more nuanced development of mentorship and learning schemes for a more efficient execution of pilot projects.

Depending on the circumstances and practical agendas, the digital iteration of the tool can also be used for hybrid collective participation, taking live notes for individual or team purposes, documentation of the process for further revision or tracking progress, among others.













6. Communication & Dissemination

No matter the usefulness and exploitation potential of our outputs and results, without a sound communication and dissemination strategy they would not reach the users they are intended to benefit.

Our communication strategy included an internal and an external level.

6.1. Internal Communication

USERS: Teams of Museums participating in the Incubation Programme

EXPECTED IMPACT: We created frameworks for internal communication to happen, seeing that some of the outputs of the programme (such as learnings specific to the context, or insights into the implemented pilot) can be used only internally, by the teams of the museums that participated in the Incubation Programme.

We encouraged participants to regularly communicate with and update their teams on how the pilot progressed. Within Incubation Programmes, it is necessary to promote and condition the development of knowledge transfer approaches and structures within participating organisations, as they are key to any pilot project having a legacy and long-lasting effect on the teams at the involved insitutions. Architecture-wise, we also built this into the design of the deliverables to be submitted by the pilots, namely in the Action and Sustainability Plans, where knowledge-sharing practices are seen as part of the sustainability strategy for the incubated pilots. Though not public, these plans are a resource that can be shared and used within institutions, as a model for what Lauren Vargas called "working out loud": the act of narrating one's work increases collaboration and healthy communication within teams.

As one of our advisors Merete Sanderhoff reflects on her practice at the SMK (National Gallery of Denmark), she advises to "use all the internal channels at hand to communicate regularly about the change processes you're going through and the results. For instance, we use the weekly internal newsletter, the monthly all staff meeting, and for bigger milestones we throw a celebration for our colleagues."

6.2. DOORS Communication & Dissemination

USERS: The Museum Sector

EXPECTED IMPACT: Using various online channels, we reached our target audiences with details about our project and its outputs, thus contributing to the impact of the acieved results and consequently to a strong exploitation strategy.

OUR CHANNELS













The DOORS website has been extensively used to ensure that the implementation of the project was as transparent as possible, and that resources would be made available to the public.

In addition to the publication on the website and in some cases on Zenodo, all resources published were disseminated through

- newsletters
- mailings directly addressed to national museum associations and other interested stakeholders
- social media posts & social media ads
- press releases
- events including
 - o Ars Electronica 2022 Dissemination of the DOORS Incubation approach
 - ECSITE Conference 2023 presentation of the SRT
 - Ars Electronica Festival 2023 distribution of the printed SRT card deck
 - Final online presentation of the results of the Incubation Programme, the pilot projects.
- print materials
 - Mailing the printed SRT (card deck) to more than 100 relevant stakeholders (Annex 4) - national museum associations, facilitators & museum practitioners - together with a mention of the online, print-yourself version and the request to further disseminate the tool to those who can benefit from it.

OUR NETWORK'S CHANNELS

The museums participating in the Incubation Programme have conducted similar communication and dissemination activities, which they will detail in their final communication reports. DOORS has also reached out to the networks of the consortium partners to help with the dissemination of some of the results (the SRT, the survey etc.).

All communication and dissemination activities that have accompanied the launch, release, or publication of the outputs and results of the project will be detailed in the upcoming Communication & Dissemination Report (D5.4).













7. Summary

Throughout the process of conceptualising our exploitation strategy, we had this question on our minds: How can we organize public and private funding schemes and investments to better address the varied needs of a heterogeneous museum sector in Europe in its journey to create the maximum positive impact of digital transformation on its communities?

As a result, we came up with an exploitation strategy informing every aspect of the project, that ensured our outputs and results have ripple effects beyond this project and beyond the pilots developed within it.

We did that by

- building a network by creating open strategies to share our research,
- trying and testing innovative approaches (incubation, application frameworks) that the sector can further experiment with,
- cultivating different mindsets within our cohort,
- fostering the implementation of digital pilots that serve and guide the sector and audiences in different ways,
- and always sharing all these developments in targeted public communication and dissemination activities.

From the start, DOORS has seen itself as an impactful, yet only initial step in igniting the digital transformation of museums and other cultural institutions. The Incubation Programme has been a response to the cultural sector's proven diversity in digital capabilities. The shared learning space of the DOORS Programme offered an immersive taste of how the future could be, how to work alongside each other acknowledging the differences, nourishing similarities, and supporting each other where reasonable and feasible. The project has made efforts to ensure that its results are adaptable and flexible and can be applied to and by other interested institutions and beneficiaries beyond the project lifespan, participating museums, and consortium partners.

The exploitation potential of our less tangible outputs may be harder to pin down, but that does not make them less important.

In a highly fragmented cultural sector which often restrains organisations from collaborating on shared societal challenges while still nurturing their unique artistic narratives, Incubation Environments should work towards developing an enabling ecosystem, opening interfaces and environments that facilitate and even enforce collaboration. Julia Pagel, member of the DOORS advisory board, remarks that funding requirements should value the ideation process as well as the result of the project and encourage Open Source sharing of findings and data. Coming together in an interactive learning environment helps develop a shared language and a sector-wide vision and stay connected in a community of practice. It organically and gradually ignites the change that the cultural sector needs, challenging the competitive mindset and fragmentation and replacing it with collaboration and knowledgesharing.

当品ARS ELECTRONICA







All in all, museums need less support for project- and output-driven one-off digital initiatives, but much rather need support for long-term, sustainable organizational adaptation and transformative change.

Projects that stem from initiatives like DOORS are, as Rob Hopkins calls them, "pop-up tomorrows," rather than regular practice in the sector. Substantial and sustainable change can be achieved only collectively and, as Finnis and Kennedy write, "clear policy making and backing by funders can be a game changer."¹

As we are wrapping up an incubator specifically dedicated to small- and medium-scaled museums across the EU, Julia Pagel rightfully remarks that "if funding organisations consider the advantages of integrating small museums in their funding structure (advantages such as less hierarchical structures, better integration of projects into the actual organisational structure, short and flexible decision-making, smaller investments, and faster results, to name just a few), they could gain a better understanding of the reality of the implementation and impacts of their funding structures, and could test new funding objectives and processes more effectively and in real-time."

¹ Finnis, J., & Kennedy, A. (2020). The digital transformation agenda and GLAMs: A quick scan report for Europeana. Culture24.













Annex 1:

The case card template, Sparkle Report





Who | Institutional Profile

Institution	Official name of the organisation and the link to the website.	
Location	Where you are based, be it a physical or virtual location.	
Short	Tell us about the institution, its programme, mission, and values.	
Description		
Ownership	Is the institution publicly or privately owned?	
Size	Whether measured in FTEs and/or no. of visitors, we want to know the size of the organisation.	

Approach to	
Digital	strategy. We're also curious to know more about the attitudes, the fears, the expectations.
	•

What | Case

Project Title	Project title or a short headline that sums it up.
Timeframe	
Images & Credits	Help us visualise it with photos. Please also include a link to a folder where the images are saved. The images might be used on our website so don't forget to include the credits in the name of each file.

Concept &	Tell us how it all started. How the concept was born, its scope and the tools used. You can
Approach	use visuals or other materials (tables, stats, charts etc.) to better illustrate the case study













Benefits & Impact	Share the short and long-term impacts (quantitative & qualitative) and benefits you believe this project has had on your organisation, from the tangible, measurable results to the less tangible ones.		
Limits & Drawbacks	We know it couldn't have been easy, so we'd like to hear all about the internal and external limitations and challenges you faced when working on this project.		
Future Prospects	Tell us what your idea sparked. What are the areas and aspects of the project that can be further expanded, and/or translated into other contexts within the museum sector?		
Key Take-Aways	Mistakes and success stories are equally inspiring had, shortly sum up (could be in bullet point format drew from this project.	-	
Involved Parties	Who were the partners and collaborators that helped you make this a reality? Include links to their websites and any other mentions you think others might find useful		













Annex 2:

The full interviewee list included in the first edition of the Sparkle Report

Ars Electronica (AT)

Karin Gabriel, Lead of Future Thinking School & Festival University

Art Institute Chicago (USA)

Andrew Simmnick, Vice President for Finance, Strategy, and Operations

Australian Museum (AU)

Paul Flemons, Manager of Digital Collections and Citizen Science

Brussels Museum Association (BE)

Audrey Tribolet, Project Manager, Brussels Museum Card & Art Nouveau Pass

CUSEUM (USA)

Brendan Ciecko, Founder & CEO
Pedro Sanz, Strategic Marketing

Maggie Taylor, Marketing & Content Lead

Design Museum London (UK)

Josephine Chanter, Director of Audiences

DOTDOT (USA/NZ)

Kate Stevenson, Founder

Elizabeth Wilde (DE)

Policy Officer, Network of European Museum Organisations, NEMO

experimenta (DE)

Claudia Gorr, Evaluation & Research

FMA Creations (FI)

Seppo Honkanen, Development Director

Tom Selänniemi, Managing Director

Helsinki City Museum (FI)

Jari Harju, Deputy Museum Director

Heureka (FI)

Ari Kurenmaa, CFO













Mikko Myllykoski, CEO Kati Tyystjärvi, Audience Development Specialist

Ingenium (CA)

Olivier Carrée-Delisle, Vice-President, Digital & Public Affairs

KesselsKramer (NL)

Ole Doorn, Client Services Director

Kiss the Frog (NL)

Bart van den Berg, Partner

Lauren Vargas (NL)

Principal at Your Digital Tattoo, a 'One by One' Digital Fellow at the University of Leicester

London Transport Museum (UK)

Anna Creedon, Digital Collections Development Manager

MACBA (ES)

Marta Velázquez, Marketing and Communication Technician Tonina Cerdà, Head of Public Programmes and Education

MAK, Museum für angewandte Kunst (AT) Janina Falkner, Head of Education and Outreach Olivia Harrer, Head of Communications and Marketing

Mauritshuis (NL)

Hedwig Wösten, Manager of Exhibitions and Projects

Merete Sanderhoff (DK)

Curator and senior advisor of digital museum practice at SMK – Statens Museum for Kunst

Michigan State University's Science Gallery (USA)

Caroline White, Education and Learning Manager

Museo Reina Sofía (ES)

María Acaso, Head of Education

Olga Sevillano Pintado, Head of Virtual Programmes

Museumvereniging, Museums Association of Netherlands (NL)

Koen Van Veen, Operations Manager Museumkaart

National Galleries of Scotland (UK)

Lucy Armitage, Daskalopoulos Digital Producer

Christopher Ganley, Digital Content & Design Manager,













NYC Culture Pass (USA) Brendan Crain, Project Manager

Ragnar Siil (ET) director and partner at Creativity Lab

SOTA, State of the Arts (BE) Wouter Hillaert & Philippine Hoegert Stephanie Dinkins, Artist

Tank Museum Bovington (UK) Lucy McCalister, Digital Marketing Manager

Te Papa (NZ) Adrian Kingston, Head of Digital Channels

Technopolis (BE) Stephane Berghmans, CEO

The Audience Agency (UK)
Jonathan Goodacre, Lead Consultant and lead

Thyssen-Bornemisza Museum (ES) Rufino Ferreras, Head of Education

Tom Schößler (DE)

Professor of Management, Marketing, Logistics; University of Applied Sciences Emden/Leer

Yale Peabody Museum (USA)
Susan Butts, Ph.D. Division of Invertebrate Paleontology













Annex 3:

DOORS Survey

GENERAL INFO

1. Focus/Sector of the museum (this is an approximate division for statistical purposes, please select the category that fits your museum the most):

Art

History and Archaeology

Natural history and maritime museums

Science and technology

Design / Applied arts

Ethnography / world cultures

Open-air museums and historical sites

Multidisciplinary

Other (describe)

2. Ownership:

Public

Private

Other (describe)

Please specify the size of your museum's team (based on full time employment)

Small-scale (1-49 FTE)

Medium-scale FTE (50-99 FTE)

Large-scale (>100 FTE)

- 4. Which country is your museum located in?
- 5. What best describes the location of your museum?

Capital City

Urban

Multi-site, but generally urban

Multi-site, but generally rural

Rural

6. Department you are working in (please select the one most related to your field of work)

Board of Trustees / Advisory Board













CEO / Director

Director's office

Administration / Management

Curatorial Department & Exhibition Management

Collection, Conservation, Archives & Library, Research

Education / Mediation / Learning

Communications, Marketing, Sponsoring, Membership Programmes

IT / Digital Department / Technical Department

Development

HR

- 7. If you and/or your colleagues would like to receive a copy of the report once it is ready, please provide your email.
- 8. Do you plan to apply/ have you applied for the DOORS –Digital Incubator for Museums?

ROLE OF DIGITAL

9. At large, what were the reasons that motivated your museum to apply new technologies and innovate processes during the last 3 years (including pre-COVID times). Please tick all that apply.

To improve and enhance visitor journey

To optimise access and/or flow control

To attract more on-site visitors

To attract more online visitors

To diversify the audience of the museum

To improve the relevance of content creation and mediation

To innovate exhibition & content production

To expand and diversify sources of revenue

To optimise administrative and operational processes

To optimise asset management

To empower employees

To reach sustainable development goals

To raise public awareness on the topic of technologies and digital transformation in societies Other (describe)

10. What is your institution's current status-quo in terms of the development of a digital strategy?

No digital strategy implemented, none planned

No digital strategy implemented, but we plan to work on it













No digital strategy implemented, but we are conceptualising/working on it now

We have a digital strategy for the museum (developed more than 5 years ago)

We have a digital strategy for the museum (developed less than 5 years ago)

We do not have a separate digital strategy, but instead incorporate those issues organically into our main strategic plan

I don't know / I'm not sure

PEOPLE / STAFF

11. Is there a specific department or a person who coordinates digital activities within your organisation?

Yes, department

Yes, person

No

Other (describe)

12. What skills do you consider to be most important for your museum with regards to digital? Please tick all that apply.

Technical leadership

Digital content management and editorial

Data management and analysis

Social media

Web/app development

Product management

Digital marketing

E-commerce

Digital design, interface design

Multi-media production

Intellectual property and rights management

Archiving and metadata standards

13. Please rate how well the skills and capabilities listed below are currently served within your museum team? (same list as above)

under-served basic well-served excellent

Technical leadership

Digital content management and editorial

Data management and analysis

Social media

Web/app development

Product management













Digital marketing
E-commerce
Digital design, interface design
Multi-media production
Intellectual property and rights management
Archiving and metadata standards

PRACTISES

14. Which of the following best describes your leadership's attitude towards digital projects? senior leadership believes technology is a distraction from the core content of the museum senior leadership is fairly uninformed about digital project uses, but is open to the potential senior leadership is both knowledgeable and supportive of the museum's digital projects digital leaders are part of the senior leadership team who proactively advocate gradual evolution of digital within the museum

I don't know / I'm not sure

15. Which of the following best describes the framework for planning and implementing digital projects and practises within your museum?

There is little to no planning for digital, as everything is reactive. Digital projects are scattered around different departments with different goals and reporting.

Planning is primarily done by individuals or individual departments and is centered on specific projects. Working processes and outcomes are isolated and hermetic. Endeavours are financed through project budgets and realised by subcontractors.

Planning starts to bridge across areas and focus on museum-wide efforts; can be driven by a cross-departmental group. Mostly realised via project-based funding and maintenance is largely dependent on external partners and/or subcontractors.

Planning and prioritization of digital is holistic and ongoing; multiple agents within the museum feed into the planning. The digital team(s) have sufficient ongoing budgets and can (mostly) support full product life-cycles.

I don't know / I'm not sure

PLANNED IMPLEMENTATION

- 16. Is your budget for the digital big enough to match your ambition?
- 17. Over the course of the previous three years, what areas have seen significant positive impact from your museum's use of digital technology and tools? Please tick all that apply.

Positioning & Brand Identity

Engaging more extensively and deeply with our existing audience













Understanding our audience and their perception of us

Incorporating critical response to our work or programmes

Creating relevant formal or informal educational and learning resource

Improving visibility of digital contents and digital distribution channels we are developing

Improving how we exhibit our end product

Improving accessibility

Collaborating with other organisations on artistic and scientific projects

Enhancing archiving and metadata standards appropriation

Online tickets sales for events and/or exhibitions

Online product sales (e.g. online merchandising, downloads)

Improving the efficiency of revenue-generating activities

Boosting donations & fundraising

Improving the quality of funding applications

Optimisation of institutional operation (e.g. recruiting staff, using resources)

Informing strategy development and prioritisation

Training and capacity building

Collaboration and teamwork (working culture)

Asset management

18. Over the course of the following three years, what areas would you like to see significant positive impact from your museum's use of digital technology and tools? Please tick all that apply.

Positioning & Brand Identity

Engaging more extensively and deeply with our existing audience

Understanding our audience and their perception of us

Incorporating critical response to our work or programmes

Creating relevant formal or informal educational and learning resource

Improving visibility of digital contents and digital distribution channels we are developing

Improving how we exhibit our end product

Improving accessibility

Collaborating with other organisations on artistic and scientific projects

Enhancing archiving and metadata standards appropriation

Online tickets sales for events and/or exhibitions

Online product sales (e.g. online merchandising, downloads)

Improving the efficiency of revenue-generating activities

Boosting donations & fundraising

Improving the quality of funding applications

Optimisation of institutional operation (e.g. recruiting staff, using resources)

Informing strategy development and prioritisation

Training and capacity building













Collaboration and teamwork (working culture)
Asset management

SPECIFIC TOOLS

- 19. Does your institution provide Wi-fi access to the visitors?
- 20. Does your museum have a Collection Management System?

21. Do you cooperate with (open access) platforms to present your collections online? Please tick all that apply.

Europeana

Wikimedia

National Digital Library

Google Arts & Culture

No, we do not collaborate

No, we do not have our collection available online

I don't know/ I'm not sure

Other (describe)

22. Please indicate which of the following digital activities your organisation already undertakes. Please tick all that apply.

Making existing archive material and/or exhibits available online

Collaborating with online/app-based resources to display collection online

Applying Al/machine learning capabilities to museum collection/archive

Posting video/audio content, either for download or streaming

Maintaining a blog/vlog with commentary and cultural criticism

Simulcast/livestream performances and/or events

Providing digital educational content or online events

Providing online interactive tours of exhibitions/museum spaces

Providing digital experiences enhancing on-site visits with digital elements

Hosting an artist-in-residence on institutional social media channels

Gathering audience input on a particular event / exhibition / artwork

Digitally-native exhibits and/or works of art

Offering exclusive online content as an incentive to encourage people to take up membership of your organisation

Offering exclusive online content via subscription

Using third party platforms to generate revenue from content

Selling products or merchandise online

Selling museum tickets online













Selling event tickets online

Using a dynamic pricing system for online ticket sales (eg. early-bird sales)

Using crowdfunding platforms (such as Kickstarter, GoFundMe or EasyFundraising) to raise money for new projects

Search engine optimisation

Paid search and/or online display advertising

Email marketing

Maintaining a CRM system

Maintaining and using a membership management system

Conducting audience research and segmentation

Conducting digital audience research

23. Please indicate which of the following digital activities your organisation would like to undertake if resources allowed (same list as above). Please tick all that apply.

Making existing archive material and/or exhibits available online

Collaborating with online/app-based resources to display collection online

Applying Al/machine learning capabilities to museum collection/archive

Posting video/audio content, either for download or streaming

Maintaining a blog/vlog with commentary and cultural criticism

Simulcast/livestream performances and/or events

Providing digital educational content or online events

Providing online interactive tours of exhibitions/museum spaces

Providing digital experiences enhancing on-site visits with digital elements

Hosting an artist-in-residence on institutional social media channels

Gathering audience input on a particular event / exhibition / artwork

Digitally-native exhibits and/or works of art

Offering exclusive online content as an incentive to encourage people to take up membership of your organisation

Offering exclusive online content via subscription

Using third party platforms to generate revenue from content

Selling products or merchandise online

Selling museum tickets online

Selling event tickets online

Using a dynamic pricing system for online ticket sales (eg. early-bird sales)

Using crowdfunding platforms (such as Kickstarter, GoFundMe or EasyFundraising) to raise money for new projects

Search engine optimisation

Paid search and/or online display advertising

Email marketing

Maintaining a CRM system













Maintaining and using a membership management system Conducting audience research and segmentation Conducting digital audience research

24. Has your institution established external partnerships (e.g. with universities, technology companies, local providers) to develop technological solutions?

No external partnerships

Yes, but it was an on-off collaboration and we do not foresee future collaborations.

Yes, it was a one-off collaboration but we do foresee future collaborations.

A few external partnerships on specific, one-off digital projects.

Yes, we regularly partner with other organisations to make up for lack of resources/skills/know-how when it comes to digital projects.

We have established partnerships with several partner organizations.

We have enduring partnerships with multiple organizations that support both strategic and operational objectives.

I don't know/ I'm not sure

25. Do you work or have you worked in partnership with other organisation(s) in the museum/culture sector to achieve your digital ambitions and enhance digital capacity?

If NO, what has prevented you from doing so?

Not a priority / No interest

We cope ourselves

Our stuff capacities are limited / overloaded with regular work flows

No vision/support of leadership

Did not manage to find relevant partners

Did not manage to find resources to launch/ to realise a collaboration project

DATA & AUDIENCE RESEARCH / Data

26. What type(s) of data does your museum consistently collect? Please tick all that apply.

Finance

Marketing

Commercial

Societal

Programme

Collection

HR

None













27. What do you currently use data and data intelligence for?

to benchmark our organisation against others

to inform the broader strategic direction of our museum

to enhance visitor experience

to optimise operations

to develop online strategy

to empower employees

to transform products / to personalise and tailor different marketing and sales

to administer and improve membership schemes

to develop fundraising campaigns targeted at different types of users

to optimise resources (e.g., energy, staff mobility, waste)

to inform the programme of the museum (commissioned artworks, events, exhibitions etc.)

to carry out audience segmentation

to create a CRM system

we do not apply data intelligence

I don't know / I'm not sure

Other (describe)

28. What would you like (if possible) to use data and data intelligence for (same list as above)?

to benchmark our organisation against others

to inform the broader strategic direction of our museum

to enhance visitor experience

to optimise operations

to develop online strategy

to empower employees

to transform products / to personalise and tailor different marketing and sales

to administer and improve membership schemes

to develop fundraising campaigns targeted at different types of users

to optimise resources (e.g., energy, staff mobility, waste)

to inform the programme of the museum (commissioned artworks, events, exhibitions etc.)

to carry out audience segmentation

to create a CRM system

we do not apply data intelligence

I don't know / I'm not sure

Other (describe)

DATA & AUDIENCE RESEARCH / Audience Research

29. Which type(s) of visitor data do you collect?

Attendance rates













Demographics

Visit patterns & visitor flows

Sales & bookings

Online behaviour (apps, website, newsletter, social media)

Membership dynamics

Satisfaction

Anecdotal data

Feedback, comments and inquiries

None

Other (describe)

30. On which of the following social networks/ websites (if any) does your organisation currently have a regularly active profile?

Facebook

Twitter

Instagram

Youtube/ Vimeo

TikTok

None

31. What information / What kind of data do you think would help you to better understand your audiences and their needs?

UX (USER EXPERIENCE)

- 32. Does your organisation currently have a web presence that is optimised for mobile devices?
- 33. Does your organisation have a web presence that is optimised for visually impaired people?
- 34. On a scale from 0 to 10, how would you personally rate the online visitor experiences that your museum currently offers?

0: not good at all; 10: excellent

35. What audience engagement approaches has your museum implemented or is currently implementing? Please tick all that apply.

Storytelling and multi-platform narratives

Immersive and interactive experiences

Ludic Participation / Gamification

Personalised Design / Personalisation of experiences













Narrative strategies for digital storytelling

Enhanced inclusivity approaches (visual, audial, cognitive etc.)

Targeting different knowledge-base (breadth)

None of the above

Other (describe)

36. What types of actions have been taken in your museum to gather data for audience and visitor experience analysis? Please tick all that apply.

Mini-interviews

Questionnaires onsite

Questionnaires online

Evaluation games or gamified feedback

Feedback tools/buttons (e.g. different emoticons, Smiley-Faces)

Focus Groups

Follow-up email surveys

Follow-up mini-interviews onsite

Follow-up mini-interviews online

Creating a "Visitor's Persona" / profile

Eyetracking

Co-Creation Sessions (whether digital or analogue, any collaboration with other organizations and/or platforms, etc.)

Offering suggestion sheets onsite

Offering suggestion sheets online

Launching "ask-the-museum/museum team" initiatives via available digital channels (e.g. website, social media)

IMPACT OF DIGITAL

- 37. On a scale from 1 to 10, according to your evaluation/estimation, to which degree have digital tools contributed to the overall success of your museum during the last three years? (NB, COVID will be assessed separately)
- 1: no contribution at all; 10: significant contribution
- 38. On a scale from 1 to 10, to which degree do you expect digital technologies to contribute to the overall success of your museum in the upcoming three years?
- 1: no contribution at all; 10: significant contribution
- 39. On a scale from 0 to 3, according to your estimation, how well do you understand the needs and motivations of your current audiences?













0: no understanding; 1: minor understanding; 2: moderate understanding; 3: in-depth understanding

40. On a scale from 0 to 3, according to your estimation, how well do you understand the needs and motivations of your potential audiences?

0: no understanding; 1: minor understanding; 2: moderate understanding; 3: in-depth understanding

41. Does your museum measure the outcomes/impact of digital projects against set goals?

We do not have defined goals or KPIs (Key Performance Indicators) and we do not measure the outcomes.

We have some defined goals, but no KPIs and don't regularly measure comprehensive outcomes.

We regularly measure specific outcomes, but have no defined goals

We have some defined goals or KPIs and measure outcomes on an ad hoc basis.

We define goals at the outset of a project and gather data at key moments to measure the results.

We continuously track against our goals and KPIs with real-time integrated data. I don't know / I'm not sure.

If NOT, What would you like to measure your digital impact for? Please tick all that apply.

To keep trustees and senior management happy

To keep government and/or funders happy

To secure more funding

To show others that we are doing great

To continuously improve what we do

To understand the impact we are having

To help colleagues understand the impact of their day to day work

To help us prioritise our roadmap and workload

If YES, Why do you actually measure your museum's digital impact? Please tick all that apply.

To keep trustees and senior management happy

To keep government and/or funders happy

To secure more funding

To show others that we are doing great

To understand the impact we are having and continuously improve what we do

To help staff understand the impact of their day to day work

To help us prioritise our roadmap and workload

43. What would you like to measure your digital impact for? Please tick all that apply.













To keep trustees and senior management happy

To keep government and/or funders happy

To secure more funding

To show others that we are doing great

To continuously improve what we do

To understand the impact we are having

To help colleagues understand the impact of their day to day work

To help us prioritise our roadmap and workload

44. What happens if you do not meet your digital KPIs?

Change strategy

Shift in staff

Lower income

Lower resources

Little or nothing

COVID EFFECTS

43. On a scale from 0 to 10, according to your estimation, to which degree has the implementation of digital tools and innovative approaches helped your museum to deal with COVID-19 restrictions and impact?

0: not at all; 10: extremely

44. Which digital revenue streams have been carried out in your organisation during the last two years? Please tick all that apply.

Developed museum's online shop

Significantly upgraded/expanded museum's online shop

Developed museum-themed "lockdown" products

Expanded the scope of offers in renting museum spaces

Significantly expanded digital offers within existing membership programmes

Launched new digital membership programme

Paid virtual tours

Paid online exhibitions

Exclusive video streamings

Podcast(s) subscriptions

E-books/downloads

Paid online learning programmes (courses/programmes/kits)

Expanded tools and formats for digital donations

Crowdfunding campaign(s)

Online ticketing

Dynamic pricing for tickets acquisitions and events













Ticket pre-sales (eg. early-bird sales)

None of the above. It wasn't necessary or relevant.

None of the above. It was not possible.

I don't know / I'm not sure.

45. According to your personal evaluation, how successful were you in increasing digital revenue?

Extremely successful, more than we expected.

Successful, as we expected.

Rather successful, however, not to the extent we expected.

Not as successful as we imagined or proportional to the investment made.

Unsuccessful.

ENABLERS & BARRIERS

46. On a scale from 1 to 3, for each of the following areas, how advanced do you feel your organisation's digital skill levels are compared to your peers?

1: underdeveloped (dramatically lacking or deficit); 2: basic; 3: advanced

Preserving and archiving

Exhibition and content production

Operations

Marketing

Business models

Outreach and engagement

47. In your opinion, which of the following, if any, would help you advance your digital skills across business models?

Recruitment of staff with specific skills/knowledge platforms

Support from senior members of the team

Training sessions delivered by external training suppliers

Partnerships with other organisations who have shared their knowledge

Time is dedicated to developing digital skills related to business models

Training sessions delivered by existing members of staff

Support from funding bodies

Funding is dedicated to developing digital skills related to business models

48. In your opinion, which of the following, if any, would help you advance your digital skills across outreach and engagement?

Recruitment of staff with specific skills/knowledge platforms

Support from senior members of the team

Training sessions delivered by external training suppliers













Partnerships with other organisations who have shared their knowledge

Time is dedicated to developing digital skills related to outreach and engagement

Training sessions delivered by existing members of staff

Support from funding bodies

Funding is dedicated to developing digital skills related to outreach and engagement

49. On a scale from 0 to 3, to what extent do you see each of the following as barriers to integrating digital tools within your museum?

0: no impact; 1: minor impact; 2: moderate impact; 3: significant impact

Digital not valued in the organisation/ Lack of interest

Lack of funding to allocate to digital projects

Difficulty in accessing external funding for digital projects

Lack of in-house understanding of what digital technology can do

No senior manager/leadership position with a digital remit

Lack of strategy/planning

Lack of in-house skills

Lack of in-house staff time

Lack of suitable external suppliers/freelance staff

Limited IT systems and/or infrastructure

Change of regulations, e.g. introduction of GDPR

Lack of accessible and adaptable (to the specific needs of the sector) technologies

Lack of Plug-and-play tools and/or products for museums

Lack of data sharing partnerships/initiatives between museums

Lack of adoption of data standards

Lack of support from governing bodies and regulators especially focused on heritage institution

NETWORKS & SUPPORT

- 50. Does your museum participate in and contribute to network(s) and/or association(s) in matters of digital transformation and institutional innovation (e.g. to make itself aware of trends, anticipate challenges better, get updates on technologies and tools)?
- 51. Which websites and/or online platforms do you use to get information on museum and/or cultural heritage management, new developments and opportunities? Please tick all that apply.

AAM (American Alliance of Museums)

ECSITE

Encatc (European network on cultural management and policy)

Europeana

Europa Nostra

ICH NGO Forum (Forum for Intangible Cultural Heritage and Civil Society)

ICOM (International council of Museums)

ICOMOS (International Council on Monuments and Sites)

Nemo (Network of European Museum Organisations)

MCN (The Museum Computer Network)

Museweb













MuseumNext

ViMM (Virtual Multimodal Museum)

Website of the national museums' association

Website of the national heritage association

Websites of the European Union, Council of Europe, UNESCO

I follow individual professionals and experts (e.g. blogs, on social media)

None

Other (describe)

52. What do you find the used websites/platforms most relevant for? Please tick all that apply.

Help to solve work-related problems

Networking: connect to peers and other cultural heritage professionals

Keep informed and updated on current research in my field

Professional literature overviews and highlights

Inform about (online and offline) professional events

New employment opportunities

Best practises, inspiration and motivation

Help to share job related reports and articles with peers

Facilitate communication of new ideas with peers

Open calls for grants and funding opportunities

Help to find collaboration partners

Provide updates on recent policies and regulations

Provide updates on new technological developments and tools

None

Other (describe)

53. Which types of funding would be helpful for your museums? Please tick all that apply.

infrastructural funding

training

staff expansion

external consultancy

business development

R&D

Al developers

membership cost at professional networks

subscriptions to resources and/or services

access / travel to networks













Annex 4:

List of organisations reached out

Country	Museum/Institution	COMMENTS, STATUS UPDATE
LT	Association of Lithuanian Museums	
GR	Athens Museum and Cultural Institutions Associations	
Balkans	Balkan Museum Network	
BG	Bulgarian Museum Association	
BE	CAHF (Contemporary Art Heritage Flanders)	
AT	CELTIC HERITAGE Museumsverein Keltenmuseum Hallein	
DE	Creative Europe Desk KULTUR	
EE	Creativity Lab (Estonia)	
CR	Croatian Museum Association	
BE	CultureActionEurope	
CZ	Czech association of science centres	
CZ	Czech Museum Association	
DK	Danish Museum Association	
DE	Deutscher Museums Bund	
NL	Dutch Culture	
NL	Dutch Museum Association (Museum Vereiniging)	
DE	EIT Culture & Creativity	
EE	Estonian Museum Association	
EU	European Museum Academy	
PT	European Museum Forum (EMF)	
FI	Finnish Museum Association	
BE	Flanders Art Institute	
BE	Flemish Museum Network	
DE	German Museum Association	
IR	Irish Museum Association	_
DE	MINTaktiv e.V. (DE)	
LV	Museum Association Latvia	
PL	National Institute for Museums and Public Collections	
RO	National Museum Network Romania	
NO	Norwegian science centre Association	
ES	Red de Museos de Ciencia (ES)	
IS	Safnaráð - The Museum Council of Iceland	













AT	Science Centre Netzwerk (AT)	
SL	Slovenian Museum Association	
СН	Swiss Museum Association	
FI	TAKO (Finland)	
ES	The Association of Mediterranean Maritime Museum	
СН	Verband der Museen Schweiz	
DK	Danish Museum Association	
FI	Finnish Museum Association	
DEN	DEN Academy	
AUS	ACMI	
DK	Agency for Culture and Palaces / Creative Europe	
DK	Agency for Culture and Palaces, DK	
GR	Alonissos Museum	Pilot II Stage
FR	Amcsti (FR)	
NL	Amsterdam University	
SL	Arboretum Volčji Potok	Pilot II Stage
	Archaeological Museum in Zagreb	Pilot I Stage
UK	ARGE Digitales Museum	
EU	NEMO	
ES	ASOCIACIÓN ESPAÑOLA DE GESTORES DE PATRIMONIO CULTURAL	
NL	Association of European Jewish Museums	
IT	Assoziazione Nationale Musei Scientifici (ANMS) (IT)	
UK	Audience Agency	
IT	BAM	
	Barbur Gallery	Pilot I Stage
AT	BMKOES - Creative Europe Desk Austria	- Hottistage
UK	Botanical Gardens Conservation International	
AT	Botanischer Garten, Universität Graz	
BE	Brussels Museum Association	-
BE	Brussels Museums	
BE	CAHF (Contemporary Art Heritage Flanders)	
IT	Castello D'Albertis	Pilot I Stage
AT	CED MEDIA DESK AT	21123465
	Center Noordung	Pilot I Stage
POR	Centro Ciência Viva do Algarve	Pilot I Stage
SE	CEO of the swedish film institute	
PT	Ciência Viva (PT)	
r' I		













US	COVES	
DE	Creative Europe Desk Berlin-Brandenburg	
CZ	Creative Europe Desk Czech Republic	
BE	Creative Europe Desk Flanders BE	
HU	Creative Europe Desk Hungary	
XK	Creative Europe Desk Kosovo	
LV	Creative Europe Desk Latvia - Ministry of Culture of the Republic of Latvia	
DE	Creative Europe Desk München	
BE	Creative Europe Desk Wallonia Brussels- Ministry of Culture	
LT	Creative Industries Association	
LT	Creative Museum Latvia	
EE	Cultural Endowment of Estonia (cultural heritage)	
SE	Cultural Heritage Incubator / Västernorrlands Museum	
DE	Deutsches Kulturforum östliches Europa	
UK	director of unit9	
SL	Društvo računalniški muzej	Pilot II Stage
NL	Dutch Museum Association (Museum Vereiniging)	
SP	EL MUSEO CANARIO	Pilot I Stage
PL	Emigration Museum in Gdynia	Pilot I Stage
ES	Estonian War Museum	Pilot II Stage
UK	EUROPEAN ARTEAST FOUNDATION	
BE	European Commision in Brussels	
LU	European Commission in Luxemburg	
NL	European Hertiage Europa Nostra Awards	
FI	Finnish heritage Agency	
FI	Finnish Museum Association	
FI	Finnish Science Centre Association	
DE	Founder & CEO Tataj Innovation ltd. warsaw/Barcelona	
SL	Goriški muzej	Pilot II Stage
NL	Hermitage Amsterdam	
	Hotel and Restaurant Museum	Pilot I Stage
AT	ICOM Austria	
EE	ICOM Estonia	
EE	ICOM Estonia	
EE	ICOM EStonia	
FI	ICOM Finland	
DE	ICOM Germany	













IS	ICOM Iceland	
IT	ICOM Italy	
LV	ICOM Latvia	
LV	ICOM Latvia	
NO	ICOM Norway	
PT	ICOM Portugal	
ES	ICOM Spain	
SE	ICOM Sweden	
NL	IMPAKT	Pilot II Stage
DE	Interim Chief communication & engagement officer	
TUR	Istanbul Dialogue Museum	Pilot II Stage
SL	kapelica gallery	
TR	Koç University VEKAM. Ankara Orchard House	Pilot I Stage
DE	Landesstelle für die nichtstaatlichen Museen in Bayern	
DE	Landesverband der Museen zu Berlin	
LV	Latvia State Culture Capital Foundation	
LT	Lithuanian Council for Culture	
ROM	Maps Museum	Pilot II Stage
US & NL	McKinsey & Company	
HR	Ministry of culture and media - CED Culture	
LV	Ministry of Culture Latvia	
LT	Ministry of Culture Lithuania (heritage&museums)	
LV	Ministry of Culture of the Republic of Latvia - CEDESK Latvia	
NL	Mondrian Fund	
SI	Motovila (CED Slovenia)	
SI	Motovila Institute (CED SI)	
CZ	MUSE Impact	
BE	Musée royal de Mariemont	Pilot II Stage
DE	Museen der Stadt Dresden	Pilot I Stage
BE	Musées et Société en Wallonie	
AUS	Museum Arbeitswelt - The Museum of the working world	Pilot II Stage
LV	Museum Association Latvia	
AT	Museum of Applied Arts	
	Museum of Arts and Crafts (Zagreb, Croatia)	Pilot I Stage
UK	Museums Association	
AT	Museumsbund	













	Museumsmanagement Niederösterreich GmbH (official name)	
	Kaiser Franz Josef Museum Baden (in the following KFJ-Baden)	
	represented by the Verein der NÖ-Landesfreunde Baden and the	
	Museumsmanagement Niederösterreich GmbH (in the following	
AUS	MMNÖ)	Pilot II Stage
BE	Museums-PASS-Musées	
AT	MUSIS	
	MUWA - Museum of Urban Wooden Architecture	Pilot II Stage
	Muzeon	Pilot II Stage
RO	National Heritage Institute Romania	
	National Library of Romania	Pilot I Stage
RO	National Museum Council Romania	
IRL	Newman House Literary Centre (Official name) MOLI	Pilot II Stage
Nordic	Nordic Culture Fund	
	Old Observatory, Leiden	Pilot I Stage
EU	Prince Claus Foundation	
IT/ ISR	Pro Terra Sancta	Pilot II Stage
DE	PROJEKTBÜRO MUSEUM MACHT STARK	
HU	Pulszky Society - Hungarian Museum Association	
FR	Relais Culture Europe - Creative Europe Desk France	
EU	RESHAPE project	
NO	ROSIE EU project	
UK	Rothschild Foundation Hanadiv Europe	
	Science Centre AHHAA Foundation	Pilot I Stage
	Science Centre AHHAA Foundation	
	SHERA - Society of Historians of East European, Eurasian, and	
No Country	Russian Art and Architecture, Inc	
Sk	Slovak Museum of Nature Protection and Speleology	Pilot I Stage
PL	SPIN (PL)	
UK	St Ives Museum	Pilot II Stage
BE	Sticky Dot	
	Stiftung Neanderthal Museum - neandethal museum	Pilot II Stage
SE	Svenska Science Centers (SE)	_
SE	Swedish Art Council	
SE	Swedish Institute	
SE	Swedish Museum association	
SE	Swedish National Heritage Board	













BE	Technopolis	
EU	The European Botanic Gardens Consortium	
	Timisora National Museum of Art	Pilot I Stage
NL	TU/E UNIVERSITY FELLOW	
UK	UK Association for Science and Discovery Centres	
SK	University Library of the University of Zilina	
	University of Tartu Natural History Museum	Pilot II Stage
FL	Urajärven kartanon ystävät ry	Pilot II Stage
NL	VCS - Association of Science centers and science museums (NL)	
	Vilniaus memoriliniu muzieju direkcija - The directorate of Vilnius memorial museums	
PL,SO,HU,C		
Н	Visegrad Fund	
	Your Digital tatto	







